

Quiz

DIS 203 and 210

March 10th

1. Write down the Maclaurin series for $f(x) = \frac{1}{x^2-3x+2}$. What is the radius of convergence?
Hints.¹

2. Integrate $\int \sqrt{1-x^2} dx$. Hints.²

3. Write down the Maclaurin series for

$$\int_0^x \sqrt{1-t^3} dt$$

Hints.³

Write your name and your answers below, or on the back of this page.

¹Break $f(x)$ into partial fractions. Don't figure out what $f^{(n)}(x)$ is!

²Use a trig substitution such as $x = \sin \theta$.

³Use the Maclaurin series for $\sqrt{1-x}$.